

CLAIMS

1. An escape device characterized in that it includes:
 - a cable;
 - a rotatable cable dispensing assembly from which said cable is dispensed under
 - 5 load,
 - a braking mechanism operatively connected to said rotatable cable dispensing assembly;
 - whereby a braking response of the braking mechanism is proportional to the rate at which cable is dispensed from the rotatable cable dispensing assembly.
- 10 2. An escape device according to claim 1, characterized in that said device includes an outer housing having said cable dispensing assembly and said braking mechanism located therein.
3. An escape device according to claim 1 or claim 2, characterized in that said device includes an outer housing and wherein said housing includes cooling leaf members
- 15 adapted to allow air flow there through to thereby dissipate any heat generated by said device.
4. An escape device according to any one the preceding claims, characterized in that said device includes an outer housing having guides to locate the position of cable dispensed from said device.
- 20 5. An escape device according to any one of the preceding claims characterized in that said device includes a back plate mounted thereto said back plate adapted to be strapped to a back of a person to thereby secure said person to said device.
6. An escape device according to any one the preceding claims, characterized in that the braking mechanism is operatively connected to said cable dispensing assembly
- 25 through an output shaft driven by the cable dispensing assembly and wherein said braking mechanism is a centrifugal braking mechanism in which a brake spinner frame having one or more braking elements attached thereto is connected to the output shaft and is rotated in response to rotation of the output shaft

- 5 7. An escape device according to claim 6, characterized in that said braking frame includes one or more braking elements pivotally mounted thereto, said braking elements pivoting under the influence of centrifugal force as the output shaft rotates to thereby bring the braking elements progressively into contact with a braking surface.
8. An escape device according to claim 6, characterized in that said braking elements are biased into a braking position whereby at least some braking force is applied when the device is at rest.
- 10 9. An escape device according to anyone of the preceding claims, characterized in that said braking mechanism is operatively connected to said cable dispensing assembly through a geared arrangement.
- 15 10. An escape device according to anyone of the preceding claims, characterized in that said rotatable dispensing assembly includes a reel from which said cable is dispensed, said reel having an innermost surface serving as a ring gear of a planetary gear mechanism and wherein said ring gear operates through a gear drives an output shaft, said output shaft serving to operate said braking mechanism.
- 20 11. A device according to claim 9, characterized in that the planetary gear arrangement consists of three outermost planetary gears carried on a stationary gear frame are arranged around a central spinner gear and wherein the spinner gear independently engages all three planetary gears, whereby each planetary gear engages ring gear such that dispensing of cable drives the ring gear which, in turn drives the planetary gears and thus the spinner gear.
- 25 12. A device according to claim 9, characterized in that the spinner gear is secured for rotation on a spinner gear shaft, and whereby the spinner gear shaft is also connected to the braking mechanism such that a speed of rotation of the spinner gear and thereby the is proportional to a speed of rotation of the ring and thus the a braking response of the braking mechanism is proportional to the rate at which cable is dispensed from the cable dispensing assembly.
- 30 13. An escape device according to any one of the preceding claims, characterized in that said cable is adapted to be connected at a free end thereof to a launch arm attached to a building.

14. An escape device according to claim 13, characterized in that a launch arm consists of a channel member having a track therein adapted to hold a runner attached to a free end of the cable.

15. An escape device according to claim 14, characterized in that said launch arm is
5 movable between a retracted position in which the channel is inoperative and an extended condition in which the launch arm is available for use a safety flap serving to restrict access to said channel in the retracted position and said safety flap being released as said channel is moved to an extended position.

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